		·		<del></del>	
FORM CD (REV. 12-1		OR OTHER THA	N FULL AND		DEPARTMENT OF COMMERCE PETITION
l reco	mmend that the Department of Cor				
:		_		(Proposed Contra	ctor(s))
for G	OES Satellite, Multi-Functional Demod			·	
		(Cescription of	Supplies or Services)		
Requ	isition No. NEEG1100-17	-00311 Cost E	stimate \$ \$250,000.01	)	
			(include basi	e contract paried and all op	tions or total systems life costs)
Requ	esting Activity NESDIS	Contra	cting Activity SATE	ELLITE AND INFO ACC	DIV (SIAD)
full and the regi	that the attached namative justification open competition. uisitioner further certifies that the attac onale used to justify other than full and	hed namative justification v	complete data necess rerifies the Government	ary to support the rec	
Requis	sitioner (Name and Title)	Signature		Phone No.	Date
	Use of this form is optional when: the and contracting officer and is approved.	he justification contains all	information required		
	3304(a)(1) - Only one responsible The supplies or services required by services will satisfy agency requirems 3304(a)(2) - Unusual & compelling The agency's need for the supplies of injured unless the agency is permitte	source and no other sup the agency are available fr ents. urgency or services is of such an un	om only one responsi	ble source and no oth urgency that the gove	er type of supplies or emment would be sertously
44 1186	not be approved if it is determined in many potential sources as is practice 3304(a)(3) - Industrial mobilization	at the urgency is due to a lable under the circumstance	lack of advance plann es is required.)	ing by the requiring a	ctivity. Solicitation from as
	it is necessary to award the contract other supplier available for furnishing establish or maintain an essential en nonprofit institution or a federally furn person for any current or anticipated 3304(a)(4) - International agreement	to a particular source or so supplies or services in car gineering, research, or dev ded research and develop litigation or dispute.	ources in order (a) to re se of a national emerg relopment capability to	naintain a facility, prod jency or to achieve into the provided by an ed	ilucer, manufacturer, or dustrial mobilization; (b) to ducational or other
 	The terms of an international agreen or the written directions of a foreign such government, have the effect of	nent or a treaty between the government reimbursing the requiring the use of process	e agency for the cost	of the acquisition of the	or international organization, ne supplies or services for
41 USC	3304(a)(5) - Authorized or required	d by statute	4 44		
ļ	A statute expressly authorizes or rec agency's need is for a brand-name of	puires that the acquisition b commercial item for authori	e made through anot zed resale.	ner agency or from a :	specined source, or the
	3304(a)(6) - National security  The disclosure of the agency's need sources from which it solicits bids or	s would compromise the ла proposals.	ational security unless	the agency is permit	ted to limit the number of
41 USC	3304(a)(7) - Public interest  The agency head (Secretary of Com	morra) deferminas that it	e not in the nublic inte	nest to use full and or	en competition in the
<u> </u> !	The agency head (Secretary of Comparticular acquisition concerned, and	imesce) determines that it is I notifies Congress in writin	ng of such determinati	ion not less than 30 d	ays before award of the

contract.

•	APPROVAL REQUIRE	MENTS	
ontracting Officer (CO)	Sign	hone No.	Date
perating Unit (OU) Competition Advocate - Not			
U Competition Advocate (Name and Title)	Signature	Phone No.	Date
epartment of Commerce (DOC) Competition Ad OC Competition Advocate (Name and Title)	vocate - Over \$700,000 bu	t not exceeding \$68 million:	Date
enior Procurement Executive (SPE) - Over \$68 r	<del></del>	St No.	lpt
PE (Name and Title)	Signature	Phone No.	Date
OTE: Use the total cost estimate specified on the freeded by lower level approval(s), e.g., over \$68	ont of this document in dete million all approvals are req	mining the necessary approvals. E uired.	ach review must
EE ATTACHMENT			

## ATTACHMENT 2: JUSTIFICATION FOR OTHER THAN FULL AND OPEN COMPETITION (JOFOG) GOES Multifunctional Demodulator Procurement

| Identification Number: NEEG1100-17-00511

1. Identification of the agency and contracting activity (FAR 6.303-2(a)(1)).

The National Oceanic and Atmospheric Administration (NOAA) Satellite and Information Acquisition Division (SIAD), located in Silver Spring, proposes to enter into a contract on a basis of other than full and open competition in support of the NESDIS Office of Satellite and Product Operations (OSPO) Geostationary Operational Environmental Satellite (GOES) Program.

2. The nature and/or description of the action being approved (FAR 6.303-2(a)(2)).

NOAA intends to award a follow-on, Sole Source, fixed price contract to Summation Research, Inc. (SRI) to provide twelve (12) new GOES multifunctional demodulators. The demodulators are commercial-off-the-shelf items with customized firmware. This is a FAR Part 12 and 13.5 acquisition.

3. A description of the supplies or services required to meet the agency's needs (including the estimated value) (FAR 6.303-2(a)(3)).

The purpose of this acquisition is to extend the GOES satellite ground system lifecycles through a replacement of SD-4220 multifunctional demodulators. This contract is necessary to avoid a break in service for the critical GOES mission requirement. Two of the critical data services that the NOAA Wallops Command & Data Acquisition (CDAS) supports are the GOES Sensor Data Link (SDL) and Processed Data Relay (PDR) satellite downlinks. The SDL uses a unique modulation scheme. The PDR uses a conventional industry standard format. The current demodulators, a primary component in the downlink systems, are over 10 years old and require a life-cycle refresh in order to maintain the reliability and availability of the critical GOES links. The requirement is to provide twelve (12) replacement GOES Satellite demodulators to the NOAA Wallops CDAS. The basic requirement will be for two (2) demodulators with an option to increase for an additional ten (10) The estimated value is \$240.000.

4. An identification of the statutory authority permitting other than full and open competition (FAR 6.303-2(a)(4)).

The statutory authority permitting other than full and open competition is 41 U.S.C.253(c)(1) as implemented by the Federal Acquisition Regulation (FAR) Subpart 6.302-1 entitled, Only One Responsible Source and No Other Supplies or Services Will Satisfy Agency Requirements. More specifically, FAR 6.302-1(a)(2)(ii)(A) which states: "Supplies may be deemed to be available only from the original source in the case of a follow-on contract for the continued development or production of a major system or highly specialized equipment, including major components thereof, when it is likely that award to any other source would result in substantial duplication of cost to the Government that is not expected to be recovered through competition."

5. A statement demonstrating the unique qualifications of the proposed contractor or the nature of the action requiring the use of the authority (FAR 6.303-2(a)(5)).

SRI is uniquely qualified to provide these services to the OSPOS Wallops CDAS based upon the following:

The mission critical nature of these GOES satellite systems requires that the replacement demodulators provide the same specific functionality that the current demodulators provide. The GOES SDL satellite downlink uses a nonstandard modulation scheme to relay Image and Sounder data to the ground system. The SDL ground system demodulators have stringent requirements to ensure that they process both streams simultaneously, or either data stream in the absence of the other. There are also strict requirements on the noise contribution that the demodulators can contribute to the Image and Sounder data streams. During the previous procurement action, when the SRI demodulators were originally procured to replace 15 year old custom made demodulators, a two phase approach was used so that three demodulators were first procured for testing. Testing of these SRI demodulators required that NOAA setup a second 16 meter antenna and ground system configuration to perform parallel testing of the new demodulators, to compare with the online 16 meter system using the older demodulators. Data on both systems was collected daily and compared by NOAA personnel; comparison testing of the SD demodulator function took nine (9) months to complete. The labor and time intensive nature of the SD testing was required to identify the multiple challenges that this link provided, through the various atmospheric and configuration changes. As these SDL challenges were identified, SRI would modify their software to correct any issues. Once all known SDL issues were addressed, phase two of the contract was initiated to procure 33 more units. To install the SRI demodulators, NOAA re-cabled the ground systems to meet the electrical and physical requirements of the SRI demodulators to enable them to successfully interface with our other systems. Allowing anyone other than SRI to provide the required demodulators will require that NOAA replicate the same level of testing that was previously completed, involving months of data comparison and testing by government personnel. Furthermore, antenna and personnel resources are much more limited today and it will not be possible to allocate these resources freely as was done before. It will require removing limited system resources from critical operations availability for running the test bed. Testing of a new product will take more time without a guarantee of accomplishing the stated purpose, while crippling current GOES capabilities. SRI possesses the unique knowledge required to perform this requirement. An open competition to complete the work would cause substantial cost duplication to the NOAA GOES satellite program.

6. A description of efforts made to ensure that offers are solicited from as many potential sources as is practicable, including whether a notice was or will be publicized as required by FAR 5.2 and, if not, which exception under FAR 5.202 applies (FAR 6.303-2(a)(6)).

A synopsis and intent to sole source notification will be posted to FBO in accordance with FAR 5.2. The notification will be made available for 15 days prior to the contract action. The contracting officer has determined that a shorter timeline is not appropriate.

Due to the follow-on nature of the requirement and the anticipation that no further demodulators will be required to support the GOES 13, 14, and 15 satellites through the end-of-lifecycle, no additional sources were solicited.

7. Determination by the contracting officer that the anticipated cost to the Government will be fair and reasonable (FAR 6.303-2(a)(7)).

The Contracting Officer determines that the anticipated price(s) will be fair and reasonable based on available economic, inflation, and improvement curve data. Prior to award of the proposed contract, cost or price information shall be obtained from the contractor and a price/cost analysis will be performed and documented to sufficiently determine that the cost to the Government of the proposed acquisition will be fair and reasonable.

8. A description of the market research conducted (see FAR Part 10) and the results or a statement of the reason market research was not conducted (FAR 6.303-2(a)(8)).

Industry research has determined that the requirements of this proposal can be met with commercially available products that are customized to meet the unique SDL requirements. SRI can provide the required demodulators based on the original units which were previously provided through open competition.

9. Any other facts supporting the use of other than full and open competition (FAR 6.303-2(a)(9)).

The estimated direct cost to the Government that would be duplicated in accordance with FAR 6.302-1(a)(2)(ii) is detailed below:

The Government will incur substantial economic costs from testing and integration due to the required downtime of extremely limited equipment. Testing and integration will require one (1) of eight (8) worldwide SPS units to be taken offline for up to nine (9) months. According to a report from Centrec Consulting Group, LLC, "the annual non-discounted net benefits estimated for improved tropical cyclone forecasts exceeded \$450 million for the year 2015." "The values for improved weather forecasts [with regard to] aviation, energy—both electricity and natural gas, irrigated agriculture, and recreational boating...exceed \$772 million for the year 2015." According to the report, at least 49% of the benefits can be associated directly with new GOES-R capabilities. (An Investigation of the Economic and Social Value of Selected NOAA Data and Products for Geostationary Operational Environmental Satellites (GOES))

The above information informs the below formula for calculating estimated loss in economic benefits due to testing and integration.

 $$1.2B \times 1/8$  SPS offline for testing x 9/12 months offline x 51% associated with legacy capabilities

The above formula results in an estimated \$58M in economic benefits lost due to the required testing and integration.

10. A listing of any sources that expressed a written interest in the acquisition (FAR 6.303-2(a)(10)).

None at this time. An addendum may be added pending any written interest received as a result of the synopsis.

11. A statement of any actions the agency may take to remove or overcome any barriers to competition, if subsequent acquisitions are anticipated.

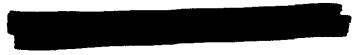
This procurement is expected to provide the support needed through the end-of-lifecycle of the GOES 13, 14 and 15 satellite series. No further acquisitions for the SD-4220 unit are anticipated.

## 12. CERTIFICATION

The JOFOC has been prepared and certified by:

Technical/Requirements Personnel:

I certify the requirement meets the Government's minimum need and that the facts, representations, and data included in this justification are complete and accurate.



Signature

Date

Contracting Officer:

I certify that the data supporting the recommended use of other than full and open competition is accurate and complete to the best of my knowledge and belief.

